OPTIMUM NUTRITION

ALL YOU NEED TO KNOW ABOUT PROTEIN

FROM THE WORLD'S #1
SPORTS PROTEIN POWDER BRAND

1. WHAT IS PROTEIN?
2. WHY DO I NEED IT?
3. WHY ARE COMPLETE PROTEINS IMPORTANT?
4. WHICH PLANT PROTEINS ARE COMPLETE?
5. WHEN TO TAKE PROTEIN?
6. HOW MUCH DO I NEED?
7. WHICH IS RIGHT FOR ME?

QUALITY 35 YEARS SUPPLEMENTS
The brand professional athletes and gym enthusiasts trust

WORKOUT 2.0 BILLION RECOVERIES
Dedicated to helping others achieve their fitness goals

QUALITY 90 THOUSAND CHECKS
Just like you, we care about what goes into your body

BANNED SUBSTANCE TESTED

INFORMED WE TEST · YOU TRUST CHOICE

Official Protein Powder Supplier

AFL

CHIEFS

*SOURCE: Euromonitor International Limited; Consumer Health 2021 edition, Sports Protein Powder category % retail value shares, 2020 data.

1 WHAT IS PROTEIN

Protein is an essential macronutrient, which are often referred as building blocks of the body. Proteins are complex molecules made from 20 basic building blocks, called amino acids.

9 of which are classified as Essential. For muscle recovery to occur, all nine of these Essential Amino Acids (EAAs) must be present in sufficient amounts. Proteins are classified as "complete" if they naturally contain all of the EAAs.

3 in particular which help to support muscle protein synthesis (BCAAs).

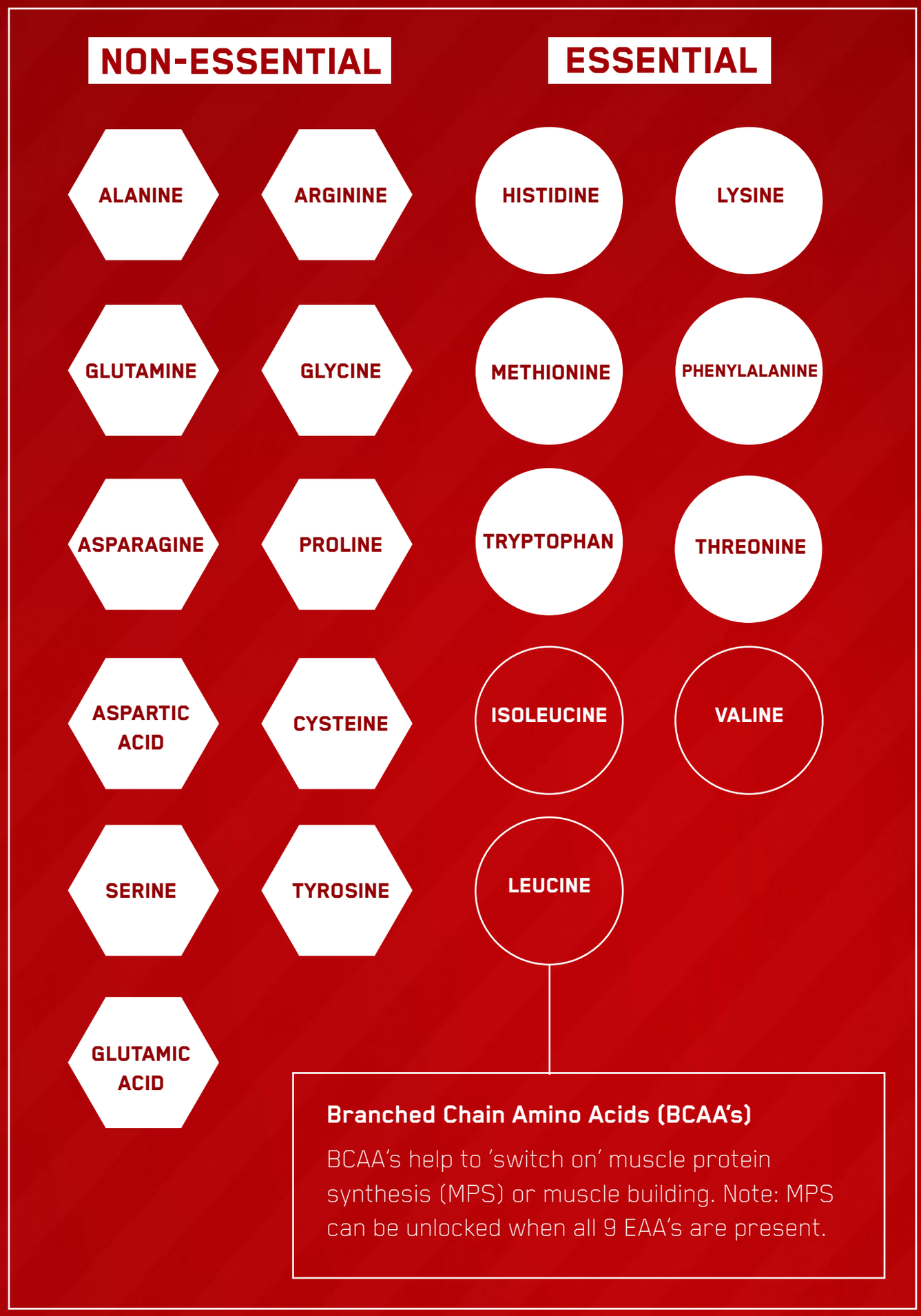
Non-essential amino acids can be made in the body.

Essential amino acids must be consumed through our diet, because the body cannot make them on its own.

SOURCE:

Post-Workout Nutrition: What You Need After A Workout

AMINO ACIDS & BRANCHED CHAIN AMINO ACIDS



2 WHY DO I NEED IT?

Protein is essential for all healthy adults on a daily basis, both active and inactive. Protein is needed to help many vital functions take place in the body from structure, function and regulation. Protein is involved in thousands of different functions all throughout the body. During physical activity muscles experience MUSCLE PROTEIN BREAKDOWN. Muscle Protein Breakdown is a normal physiological response to exercise.

Muscle protein breakdown (MPB) increases with increased intensity and prolonged duration of activity. MPB is the signal for the body to utilise protein and amino acids to build adapting muscle.

Muscle fibers undergo micro damage or mini tears this process supports muscle building over time

3 WHY ARE COMPLETE PROTEINS IMPORTANT?

Generally we should aim to consume Complete Protein sources as these types include all nine of the Essential Amino Acids in sufficient quantities. For those looking to build and repair muscle, consuming complete proteins where possible can optimally support muscle protein synthesis for building repairing and recovering muscle.

Proteins are classified as “incomplete” if they are low or lacking in one or more essential amino acids. Incomplete proteins don’t support muscle protein synthesis to the level of a complete proteins.

COMPLETE PROTEIN

Meat, Poultry, Fish, Dairy, Eggs and Soy

INCOMPLETE PROTEIN

Single-source or individual plant proteins, such as **Pea, Quinoa, Buckwheat, Oats, and Seeds**

PROTEIN POWDER

Use protein powder such as **Whey Protein** to supplement daily protein needs, when protein needs from food cannot be met.

4 WHICH PLANT PROTEINS ARE COMPLETE?

Although not many exist there are some plant-based proteins that are complete, such as soy products.

Examples of incomplete proteins include collagen and single plant protein sources such as pea, rice, nuts, seeds or beans.

Beans + Rice = Complete Protein

You can form a complete protein if you combine certain types of incomplete protein sources together. A great example is combining beans and rice to make a complete protein.

SOURCE:

Understanding the Basics of Protein

Are All Proteins Created Equal?

5 WHEN TO TAKE PROTEIN?

RECOVERY STARTS AFTER TRAINING

That's why it's important to replenish energy and support muscle recovery following activity

POST-WORKOUT NUTRITION IS PRIME FUELING OPPORTUNITY

Post-workout nutrition is a prime fueling opportunity as muscles are especially receptive to nutrients.

MUSCLE RECOVERY CAN LAST BETWEEN 48-72 HOURS

The best time to take protein does depend on the individual and their activity level

MORNING, DAY OR NIGHT

Protein can be taken morning, day or night.

SOURCE:

Understanding the Basics of Muscle Recovery

If you want to understand how much protein we need as we age, read below:

Understanding Protein Needs As We Age

6 HOW MUCH DO I NEED?

- The amount you need each day depends on you
- Protein needs may change based on age, body composition and level of activity
- In general, protein should make up about **10% to 35%** of your total daily calories. This will vary depending on your individual performance goal

DAILY PROTEIN INTAKE (G/KG BODY WEIGHT)

	MUSCLE GAIN / INTENSE TRIANING	ACTIVE & ENDURANCE	TEAM / OTHER SPORTS
			
G/KG BODY WEIGHT	1.4-2.2	1.2-1.4	1.2-2.0

Try to consume your protein from whole food sources, if possible. If for some reason you can't hit your daily protein target then Protein Supplements such as Protein Powder is a great option.

FOOD 1ST

SUPPS 2ND

Whey Protein and Casein Protein

are dairy proteins derived from cow's milk. There are different commercially available formats of each. Neither is superior over another. Find what works best for you, your schedule, and goals.

Nutrition Information

Servings Per Container 29
Serving Size 30.4 g (About 1 Scoop)

	Avg. Quantity Per Serving	Avg. Quantity Per 100g
Energy	496 kJ/119 kcal	1624 kJ/389 kcal
Protein	24 g	79 g
Fat, total	1 g	3 g
-saturated	0.5 g	2 g
Carbohydrate	3 g	10 g
-sugars	1 g	3 g
Sodium	50 mg	164 mg

INGREDIENTS: Protein Blend (Whey Protein Isolate [MILK], Whey Protein Concentrate [MILK], Whey Peptides [MILK]) (Emulsifier: SOY Lecithin), Cocoa Powder, Flavors, Sweetener (950).

CONTAINS: MILK AND SOY.

Determine the most prominent protein source in your product.

The first ingredient on a nutritional panel is the most abundant ingredient that is in the formulation at the highest ratio.

100% Gold Standard Whey relies predominately on Whey Protein Isolate, a rapidly digesting, pure protein source.

SOURCE:

Understanding the Basics of Whey Protein

Understanding the Basics of Casein Protein

7 WHICH PROTEIN IS RIGHT FOR ME?

WHEY PROTEIN CONCENTRATE (WPC)

UP TO

80%

PROTEIN

High quality protein, generally contains slightly higher lactose and fat than WPI & HWP.

- Widely used
- Fast digesting

Promotes muscle strength and repairs

To be used before & after exercise

WHEY PROTEIN ISOLATE (WPI)

UP TO

90%

PROTEIN

Undergoes a filtration process where some of the lactose and fat is further reduced.

- Less fat, cholesterol, carbohydrates and lactose
- Fast digestion

Promotes muscle strength and repairs

To be used before & after exercise

HYDROLYSED WHEY PROTEIN

UP TO

90%

PROTEIN

Highly specialised filtered WPC or WPI is broken down into smaller pieces for rapid absorption.

- Hydrolysed WPI is the most highly purified Protein available
- Quick digesting

Promotes muscle strength and repairs

To be used before & after exercise

CASEIN PROTEIN

UP TO

80%

PROTEIN

Casein is a good choice for times when nutrients won't be available for a while.

- Slow digesting protein for overnight muscle recovery (up to 8hrs digestion)
- It's thick texture provides versatility in the kitchen and the shaker

Helps to Build & Maintain Muscle

To be used overnight or used if long gaps between meals

PLANT PROTEIN

PROTEIN %

WILL VARY BY PLANT

Most single source plant-based proteins are considered incomplete.

- Sourced from plant sources
- Suited for lactose intolerant or following a vegetarian diet

Helps to Build & Maintain Muscle when made complete by blending multiple single sources

To be used anytime

OPTIMUM NUTRITION 100% GOLD STANDARD WHEY
Is a Whey Protein blend with Whey Protein Isolate as the predominant source meaning it has had excess carbohydrates, fat and lactose filtered out.

OPTIMUM NUTRITION GOLD STANDARD ISOLATE
Is ultra-filtered for exceptional purity for a final product that is a fast digesting complete protein.

Optimum Nutrition would recommend a whey protein during the day and casein protein at night.

OPTIMUM NUTRITION GOLD STANDARD CASEIN
Because Casein is a slow digesting protein the sustained release makes it suitable for night time consumption before bed. Feeding your muscles overnight.